

R E M A R K S

Applicant is pleased to note that the claims are free of any prior art rejection.

Claim 6 was amended to include the features of claim 8 as "step (g)."

Claim 6 was also amended to replace "promising candidate nucleotide sequence" with --most potential candidate nucleotide sequence--. This amendment is supported in the specification on page 17, lines 14 to 15.

claim 6 was further amended to replace "extracting" with --listing--. This amendment is supported in the specification on page 14, lines 12 to 18.

Claim 6 was additionally amended to include a feature in step (e) ("by multiplying the occurrence frequencies of all the n unit sequences contained in the candidate sequence") that is supported on page 14, line 8 to page 15, line 6 of the specification.

Claim 9 was amended amended to depend on claim 6.

Claim 10 was amended to change "promising candidate nucleotide sequence" to --potential candidate nucleotide

sequence--. As noted above, this amendment is supported on page 17, lines 14 to 15 of the specification.

Claims 11 and 12 were amended to depend on any one of claims 6, 7, 9 or 10.

With respect to Rule 116, entry of the above amendments is respectfully requested, since the amendments involve features set forth in the claims prior to the final rejection or are responsive to objections and rejections set forth in the final rejection.

Claim 6 was objected to for the reason set forth at the middle of page 2 of the Office Action.

Claim 6 was amended to avoid the objection.

Claims 6 to 12 were rejected under 35 USC 112, first paragraph, for allegedly failing to comply with the written description requirement for the reasons set forth on pages 2 to 3 of the Office Action.

The position was taken in the first paragraph on page 3 of the Office Action that there is no support in the specification for a "promising candidate nucleotide sequence."

As discussed above, the claims were amended to replace "promising candidate nucleotide sequence" with --potential

candidate nucleotide sequence--, which is supported in the specification on page 17, lines 14 to 15.

Regarding the second paragraph on page 3 of the Office Action, the terminology previously in claim 6 of "the promising candidate nucleotide sequences have a high possibility of including a suitable nucleotide sequence of the analytical oligo nucleic acid" has been deleted.

Claims 6 to 12 were rejected under 35 USC 112, first paragraph, for allegedly failing to comply with the "enablement requirement" for the reasons set forth beginning at the middle of page 3 and continuing to the bottom of page 6 of the Office Action.

As discussed hereinabove, claim 6 was amended to include the features of claim 8 as "step (g)." It is respectfully submitted that such amendment fully addresses the Examiner's position set forth on page 4, lines 8 to 22 of the Office Action.

Furthermore, in conjunction with the amendment discussed in the preceding paragraph, the preamble of claim 6 has been changed to "A method of selecting the most potential candidate nucleotide sequences of analytical oligo nucleic acid for use in analysis of a target nucleic acid."

Regarding the position taken on page 5, lines 5 to 7 of the Office Action, as discussed above, the term "extracting" in claim 6 has been replaced with the term --listing-- in the claims. This is supported on page 14, lines 12 to 18 of the specification. As stated in the specification on page 14, lines 12 to 18, all the candidate sequences contained in the ORF of the target nucleic acid (that is, those used as analytical sequence and having a base number of p ($p > n$)) are completely listed. This step is simply a mathematical process, and it does not include any physical or chemical factor. Therefore, step (c) does not require any other criteria.

The position was taken at the middle of page 5 of the Office Action that "the instant claims are not enabling for the transition of step (e) to step (f), as it is not taught how to calculate an occurrence frequency index of a candidate on the basis of the occurrence of the n unit sequence." Applicant respectfully disagrees with this position for the following reasons.

First, with respect to step (e) of claim 6, the calculation for the index of the occurrence frequency of each candidate sequence is discussed in the specification on page 14, line 18 to

page 15, line 6. This calculation is simply a mathematical operation. To clarify this issue, the phrase that corresponds to the aforesaid description in the specification, that is, "by multiplying the occurrence frequencies of all the n unit sequences contained in each candidate sequence" has been added to step (e) of claim 6.

Next, in step (f) of claim 6, candidate sequences to be processed in the selecting step (g) are selected from all the possible candidate sequences listed in step (c), based on the index of the occurrence frequency calculated in step (e). The step (f) serves to reduce the number of candidate sequences to be processed in the final selecting step (g), and therefore there is no clear criteria regarding the threshold value. However, in the process of step (f), the number of candidate sequences to be processed in the selecting step (g) must be reduced. Therefore, the only condition for the threshold value is that the value is within a distribution range of indices of the occurrence frequency (excluding the maximum and minimum values) calculated in step (e). It is respectfully submitted that this concept can be easily understood by a person having ordinary skill in the art

from the description provided in the specification on page 15, lines 6 to 20 and by FIG. 4.

Claims 6 to 12 were rejected under 35 USC 112, second paragraph, for the reasons beginning at the bottom of page 6 and continuing to the middle of page 7 of the Office Action.

With respect to the first paragraph on page 7 of the Office Action, as discussed hereinabove, the terminology of "suitable nucleotide sequence..." formerly recited in step (f) of claim 6 has been deleted.

Concerning the second paragraph on page 7 of the Office Action, the terminology of "suitable nucleotide sequence" was deleted from claim 6.

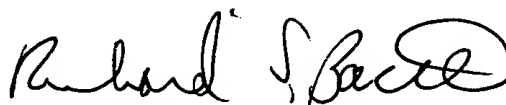
It is therefore respectfully submitted that the present claims comply with all the requirements of 35 USC 112. Withdrawal of the 35 USC 112 rejections is respectfully requested.

Reconsideration is requested. Allowance is solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

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Respectfully submitted,



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Enc.: PETITION FOR EXTENSION OF TIME

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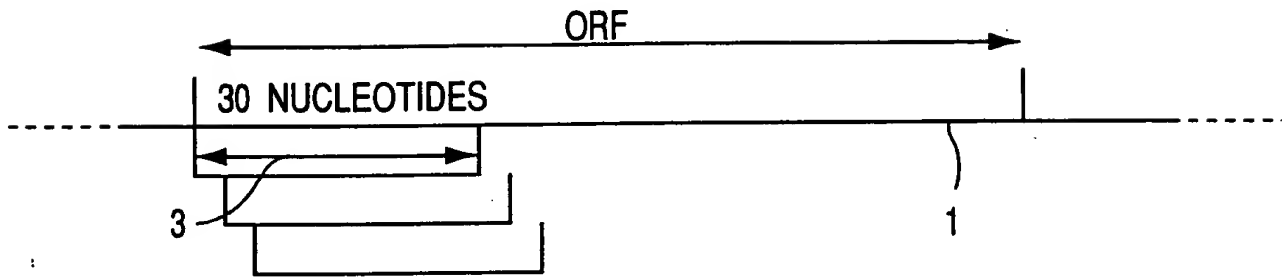


FIG. 3

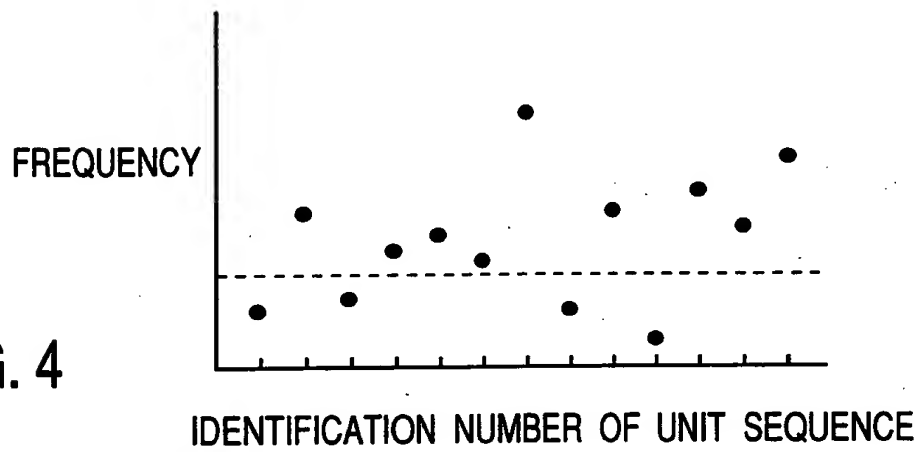


FIG. 4

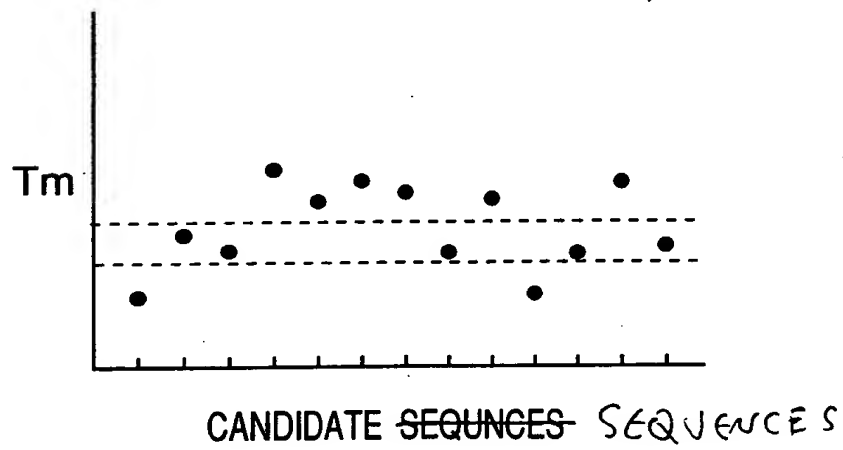


FIG. 5

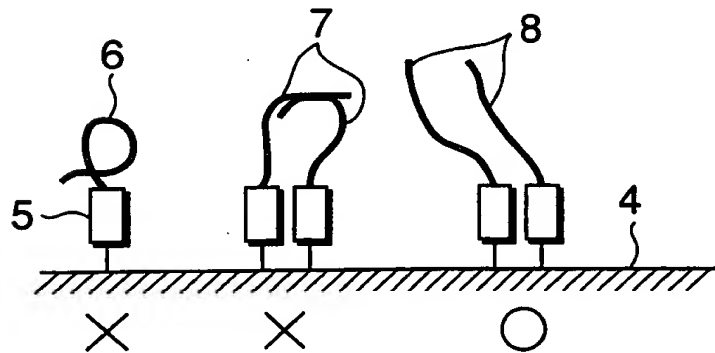


FIG. 6

